

What is claim 1 is:

1. A semiconductor laser device comprising:
 - a package having a front surface, a rear surface and an outer peripheral surface;
 - 5 a semiconductor laser element and a light receiving element provided on the front surface;
 - a plurality of leads arranged in spaced relation on the front surface as extending outward from the package; and
 - an optical element supported above the front surface with
 - 10 its optical axis perpendicular to the front surface for guiding a laser beam emitted from the semiconductor laser element toward an object and guiding light reflected on the object to the light receiving element;
 - wherein the outer peripheral surface is configured so as to
 - 15 be fitted in a cylindrical hole having an axis parallel to the optical axis of the optical element, and has a recess extending from the front surface to the rear surface, and the leads are bent as extending from the front surface and passing through the recess with distal portions thereof extending along the optical axis of the
 - 20 optical element and with proximal ends thereof electrically connected to the semiconductor laser element and the light receiving element.
2. A semiconductor laser device as set forth in claim 1,
 - wherein the optical axis of the optical element is aligned with the
 - 25 axis of the cylindrical hole.

3. A semiconductor laser device as set forth in claim 1,
wherein the package comprises a planar substrate, and a plurality
of projections arranged in spaced relation as projecting outward
from the substrate parallel to the substrate, and the recess is
5 defined between adjacent two of the projections.
4. A semiconductor laser device as set forth in claim 3,
wherein the substrate has an opening for air-cooling the
semiconductor laser element.
5. A semiconductor laser device as set forth in claim 3,
10 wherein the substrate is rectangular, and the projections project
outward from four corners of the substrate.
6. A semiconductor laser device as set forth in claim 5,
wherein the leads extend from two opposite edges of the
rectangular substrate and is bent perpendicularly.
- 15 7. A semiconductor laser device as set forth in claim 3,
further comprising a mirror provided on a surface of the substrate
for reflecting the laser beam emitted from the semiconductor laser
element perpendicularly to the substrate surface.
8. A semiconductor laser device as set forth in claim 3,
20 wherein the substrate and the projections are integrally formed of
the same material.
9. A semiconductor laser device as set forth in claim 3,
wherein the substrate has an end face configured so as to receive
a lead bending spacer between the leads and the end face of the
25 substrate when the leads are bent.

10. A semiconductor laser device as set forth in claim 1,
wherein the leads each include an inner lead portion present
inside the package and an outer lead portion present outside the
package, and the outer lead portions of the leads are arranged at
5 greater intervals than the inner lead portions of the leads.

11. A semiconductor laser device as set forth in claim 10,
wherein the intervals of the inner lead portions increase away from
proximal portions thereof.

12. A semiconductor laser device comprising:

10 a substrate;

a plurality of substrate support blocks projecting outward
from the substrate in spaced relation parallel to the substrate, the
substrate support blocks cooperatively defining an outer
peripheral surface which is configured so as to be fitted in a
15 cylindrical hole; and

a semiconductor laser element, a light receiving element,
an optical element and a plurality of leads provided on a front
surface of the substrate, the optical element being adapted to
guide a laser beam from the semiconductor laser element toward
20 an object and guide a light beam reflected on the object to the
light receiving element;

wherein the leads have proximal ends electrically
connected to the semiconductor laser element and the light
receiving element, and distal portions extending from an end face
25 of the substrate to be bent and further extending through a gap

defined between adjacent two of the substrate support blocks toward a rear surface of the substrate.

13. A semiconductor laser device comprising:

a package having a front surface and a rear surface;

5 a plurality of interconnection leads arranged in spaced relation on the front surface of the package as extending outward from the package;

a semiconductor laser element, a reflective mirror, a light receiving element and an optical element provided on the front
10 surface of the package, the optical element being adapted to guide a laser beam emitted from the semiconductor laser element toward a medium carrying external information recorded thereon and further guide light reflected on the medium to the light receiving element;

15 wherein the leads are electrically connected to the semiconductor laser element and the light receiving element, the leads each including an inner lead portion present inside the package and an outer lead portion present outside the package, the outer lead portions of the leads being arranged at greater
20 intervals than the inner lead portions of the leads, and bent toward the rear surface of the package.